

# PRICES RECEIVED BY FARMERS

Minnesota-Wisconsin Manufacturing Grade Milk  
Price Series and Final Two-State Estimates for  
1974 - 1976

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MINNESOTA-WISCONSIN MANUFACTURING GRADE MILK PRICE SERIES  
AND FINAL TWO-STATE ESTIMATES FOR 1974-76

The Statistical Reporting Service of the U. S. Department of Agriculture publishes each month, estimates of the average price received by farmers and the average milkfat test for milk of manufacturing grade for the preceding month for the Minnesota-Wisconsin area.

These two-States consistently produce over half of the manufacturing grade milk marketed in the United States. The estimates relate only to manufacturing grade milk purchased from farmers and do not include Grade A milk diverted to manufacturing uses. Data needed for the preparation of the two-State series are collected by the offices of the Federal-State Agricultural Statisticians in Minnesota and Wisconsin. These data come from regularly scheduled monthly reports submitted by plants receiving manufacturing grade milk. After data are summarized and analyzed by the Federal-State Statisticians, they are forwarded to Washington, D. C. for final review by the Crop Reporting Service and consolidation into the two-State average price and test.

The Minnesota-Wisconsin (M-W) estimate is the average price for all milk of manufacturing grade delivered in bulk tanks and in cans f.o.b. plant or receiving station, before hauling costs are deducted. It includes bulk-tank, quantity, or other premiums paid to producers, but excludes hauling subsidies. The price estimates for a given month are derived from two factors: (1) Estimated average price for the base month, which is the month preceding that to which the M-W price estimate relates, and (2) Estimate of change from the base month to the month to which the M-W price estimate relates.

The base-month price and test are determined from reports from about 200 plants in Wisconsin and 120 in Minnesota. These plants purchase approximately 60 percent of all manufacturing-grade milk sold in the two States. Plants report total pounds of manufacturing-grade milk received from producers, total pounds of milkfat in the milk, and total dollars paid to producers.

The estimated monthly price and fat test are weighted together by the total quantity of manufacturing grade milk purchased from farmers in each State. During the first half of any year, these weights are based on milk purchases for the same month two years earlier. During the latter half of the year, weights are based on purchases for the corresponding month in the preceding year.

The 320 plants in the base-month sample are well distributed geographically over both States and represent all the major types of processing plants using manufacturing-grade milk. At the end of the year, reports from all manufacturing-grade milk plants in each State indicate close agreement with the monthly prices derived from the 320 plants.

The estimate of change from the base month to the month to which the M-W price estimate relates is estimated from reports from a sample of 110 plants selected in the two States (about 40 plants in Minnesota and 70 in Wisconsin). These plant reports are also evaluated in terms of changes from the base month in wholesale prices of manufactured dairy products and historical price and fat test relationships. Estimated changes in price and fat-test are applied to the State average for the base month to estimate price and fat-test for each State for the month to which the estimate relates.

Plants in Minnesota and Wisconsin are classified into three major product groups according to the proportion of manufacturing-grade milk purchased for cheese, for butter and its by-products, and for varied products. In both Minnesota and Wisconsin, the varied products group consists mostly of plants which make butter, cheese, or other products in such proportions that they cannot be clearly classified in any one specific group, such as primarily buttermaking plants or cheesemaking plants. In Minnesota during 1976, the butter and by-products group accounted for 30 percent of all manufacturing-grade milk in the State; cheese, 50 percent, and the varied-products group, 20 percent. The proportion of manufacturing grade milk in Wisconsin purchased in 1976 by each product group was: (1) cheese, 86 percent, (2) butter and by-products, 3 percent, and (3) varied products, 11 percent.

The percentages of milk for each use are used as weights for combining reported price and milk fat test data by groups for the monthly manufacturing-grade average price and milkfat estimates in each State.

Data for the M-W price series are collected from the 110-plant sample, using a questionnaire mailed near the close of each month. This inquiry obtains information for the base month and for the first half of the succeeding month relating to: (1) quantity of manufacturing-grade milk purchased, (2) quantity of fat included, (3) dollars paid, (4) average price at average test, and (5) related information, such as quantities purchased in bulk and in cans, the base price for milk with 3.5 percent fat, and point differentials for varying amounts of fat. Space also is provided on the inquiry for the plant manager's best estimate of the average fat test and milk price for the last half of the month to which the M-W estimate relates.

COMPARISON OF M-W SERIES AND FINAL ESTIMATES - The table on page 4 gives a comparison of the current Minnesota-Wisconsin manufacturing-grade milk price at average test with the final estimate combined for the two States from 1974 through 1976, together with the corresponding comparison for milkfat percentage. The entries in the column headed "Final Two-State Estimate" are weighted averages of the final monthly prices for Minnesota and Wisconsin combined, using complete monthly marketings for each State as weights.

For the 3 years 1974 through 1976, the difference between the current Minnesota-Wisconsin estimates of price per hundredweight and the final data average near 1 cent; the difference in milkfat tests average is negligible.

Since the Minnesota-Wisconsin price for use in Federal milk orders is reported on a 3.5 percent milkfat basis, a table is included showing the same comparisons converted to a 3.5 percent basis. The price at average milkfat test is converted to a 3.5 percent basis using a milkfat differential per point (1/10 of one percent) that is calculated by multiplying the average price of Grade A (92 - score) butter at Chicago by 0.120. This is the method specified in Federal milk orders.

PUBLICATION - The report for each month on price per hundredweight at the average milkfat test and on a 3.5 percent basis is issued about the 5th of the following month from the Wisconsin office of the Statistical Reporting Service, P. O. Box 9160, Madison, Wisconsin 53715. This report is available on request. The price series is also published in the Dairy Market News reports issued by the Dairy Market News Service.

COMPARISON OF MINNESOTA - WISCONSIN MANUFACTURING GRADE MILK PRICE AND MILKFAT TEST WITH  
THE TWO-STATE AVERAGE OF FINAL ESTIMATES, BY MONTHS, 1974-76

YEAR AND MONTH	MINNESOTA - WISCONSIN SERIES		FINAL TWO-STATES ESTIMATES		DIFFERENCE BETWEEN FINAL TWO-STATE AND MINN-WIS SERIES	
	PRICE PER	MILKFAT	PRICE PER	MILKFAT	PRICE PER	MILKFAT
	CWT 1/ DOLLARS	TEST PERCENT	CWT 1/ DOLLARS	TEST PERCENT	CWT 1/ DOLLARS	TEST PERCENT
<u>1974</u>						
JAN	8.28	3.72	8.26	3.72	-.02	0
FEB	8.27	3.67	8.25	3.66	-.02	-.01
MAR	8.26	3.64	8.25	3.65	-.01	+.01
APR	7.84	3.64	7.80	3.65	-.04	+.01
MAY	7.02	3.62	6.87	3.63	-.15	+.01
JUN	6.38	3.59	6.41	3.60	+.03	+.01
JUL	6.34	3.57	6.29	3.53	-.05	-.04
AUG	6.45	3.57	6.47	3.57	+.02	0
SEP	6.83	3.67	6.85	3.69	+.02	+.02
OCT	7.07	3.80	7.10	3.79	+.03	-.01
NOV	7.03	3.83	7.03	3.82	0	-.01
DEC	6.64	3.79	6.68	3.78	+.04	-.01
SIMPLE AVERAGE						
<u>1974</u>	7.2008	3.6758	7.1883	3.6742	-.0125	-.0016
<u>1975</u>						
JAN	6.98	3.73	6.93	3.73	-.05	0
FEB	7.01	3.69	7.01	3.71	0	+.02
MAR	7.00	3.67	7.03	3.69	+.03	+.02
APR	7.08	3.67	7.12	3.69	+.04	+.02
MAY	7.15	3.66	7.18	3.66	+.03	0
JUN	7.21	3.62	7.21	3.61	0	-.01
JUL	7.43	3.59	7.43	3.57	0	-.02
AUG	7.79	3.59	7.85	3.58	+.06	-.01
SEP	8.47	3.69	8.56	3.71	+.09	+.02
OCT	8.94	3.80	9.03	3.77	+.09	-.03
NOV	9.18	3.79	9.23	3.77	+.05	-.02
DEC	9.40	3.76	9.50	3.77	+.10	+.01
SIMPLE AVERAGE						
<u>1975</u>	7.8033	3.6883	7.8400	3.6883	+.0367	0
<u>1976</u>						
JAN	9.13	3.72	9.13	3.71	0	-.01
FEB	8.42	3.68	8.42	3.67	0	-.01
MAR	8.76	3.66	8.58	3.66	-.18	0
APR	8.59	3.64	8.57	3.64	-.02	0
MAY	8.43	3.62	8.45	3.61	+.02	-.01
JUN	8.41	3.58	8.45	3.55	+.04	-.03
JUL	8.76	3.54	8.79	3.52	+.03	-.02
AUG	9.07	3.56	9.05	3.54	-.02	-.02
SEP	8.62	3.64	8.72	3.64	+.10	0
OCT	8.54	3.76	8.62	3.78	+.08	+.02
NOV	8.61	3.82	8.61	3.83	0	+.01
DEC	8.58	3.80	8.55	3.80	-.03	0
SIMPLE AVERAGE						
<u>1976</u>	8.6600	3.6683	8.6617	3.6625	+.0017	-.0058
36 MONTHS	7.8881	3.6775	7.8967	3.6750	+.0086	-.0025

1/ AVERAGE PRICE FOR MILK OF AVERAGE MILKFAT TEST.

COMPARISON OF MINNESOTA - WISCONSIN MANUFACTURING GRADE MILK PRICE WITH  
FINAL TWO-STATE ESTIMATED PRICE, FOR MILK OF 3.5 PERCENT MILKFAT CONTENT, BY MONTHS, 1974-75 1/

YEAR AND MONTH	:	MINNESOTA- WISCONSIN SERIES	:	FINAL TWO-STATE ESTIMATE	:	DIFFERENCE BETWEEN FINAL TWO-STATE AND MINN-WIS SERIES
<u>1974</u>	:		:		:	
JAN	:	8.10	:	8.08	:	-.02
FEB	:	8.14	:	8.13	:	-.01
MAR	:	8.15	:	8.13	:	-.02
APR	:	7.73	:	7.68	:	-.05
MAY	:	6.93	:	6.78	:	-.15
JUN	:	6.31	:	6.34	:	+.03
JUL	:	6.29	:	6.27	:	-.02
AUG	:	6.39	:	6.41	:	+.02
SEP	:	6.69	:	6.70	:	+.01
OCT	:	6.82	:	6.86	:	+.04
NOV	:	6.76	:	6.76	:	0
DEC	:	6.41	:	6.46	:	+.05
SIMPLE AVERAGE	:		:		:	
<u>1974</u>	:	7.060	:	7.050	:	-.010
<u>1975</u>	:		:		:	
JAN	:	6.80	:	6.75	:	-.05
FEB	:	6.85	:	6.84	:	-.01
MAR	:	6.86	:	6.87	:	+.01
APR	:	6.94	:	6.96	:	+.02
MAY	:	7.02	:	7.05	:	+.03
JUN	:	7.11	:	7.12	:	+.01
JUL	:	7.35	:	7.37	:	+.02
AUG	:	7.70	:	7.77	:	+.07
SEP	:	8.27	:	8.34	:	+.07
OCT	:	8.60	:	8.73	:	+.13
NOV	:	8.84	:	8.91	:	+.07
DEC	:	9.08	:	9.17	:	+.09
SIMPLE AVERAGE	:		:		:	
<u>1975</u>	:	7.618	:	7.657	:	+.039
<u>1976</u>	:		:		:	
JAN	:	8.90	:	8.91	:	+.01
FEB	:	8.25	:	8.26	:	+.01
MAR	:	8.60	:	8.42	:	-.18
APR	:	8.44	:	8.42	:	-.02
MAY	:	8.30	:	8.33	:	+.03
JUN	:	8.32	:	8.39	:	+.07
JUL	:	8.71	:	8.76	:	+.05
AUG	:	8.99	:	9.00	:	+.01
SEP	:	8.46	:	8.56	:	+.10
OCT	:	8.26	:	8.31	:	+.05
NOV	:	8.26	:	8.25	:	-.01
DEC	:	8.25	:	8.22	:	-.03
SIMPLE AVERAGE	:		:		:	
<u>1976</u>	:	8.478	:	8.486	:	+.008
36 MONTHS	:	7.719	:	7.731	:	+.012


1/ PRICES HAVE BEEN CONVERTED FROM THE AVERAGE MILKFAT TEST TO 3.5 PERCENT USING THE MILKFAT DIFFERENTIAL SPECIFIED IN FEDERAL ORDERS (CHICAGO GRADE A BUTTER X 0.120).



MANUFACTURING GRADE MILK: WEIGHTS USED TO CALCULATE THE MINNESOTA-WISCONSIN MILK  
PRICE SERIES, BY MONTHS 1976-78 1/

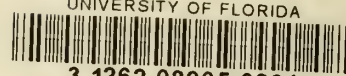
MONTH	1976		1977		1978	
	MINN	WIS	MINN	WIS	MINN	WIS
	MILLION POUNDS					
JAN	477	566	428	528	426	530
FEB	477	530	429	497	416	517
MAR	542	626	491	581	464	571
APR	533	644	481	601	467	608
MAY	566	740	503	668	498	675
JUN	546	751	486	680	469	687
JUL	407	609	421	625		
AUG	334	546	370	587		
SEP	305	504	318	517		
OCT	319	508	326	495		
NOV	324	468	340	474		
DEC	373	502	389	512		

1/ WEIGHTS SHOWN FOR JANUARY THROUGH JUNE ARE BASED UPON RECEIPTS OF MANUFACTURING GRADE MILK TWO YEARS EARLIER WHILE WEIGHTS FOR JULY THROUGH DECEMBER ARE BASED UPON RECEIPTS FROM A YEAR EARLIER.



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